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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/632,017	08/02/2000	Jerry Wynn Brimer	NORTH-358G/A-2185 D1	1088
7663	7590	06/29/2004	EXAMINER	
STETINA BRUNDA GARRED & BRUCKER 75 ENTERPRISE, SUITE 250 ALISO VIEJO, CA 92656			JACKSON, MONIQUE R	
			ART UNIT	PAPER NUMBER
			1773	
DATE MAILED: 06/29/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/632,017	Applicant(s) BRIMER ET AL.	
	Examiner Monique R Jackson	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16,31,36,40-45 and 47-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 47-52 is/are allowed.
- 6) ☒ Claim(s) 16,31,36 and 40-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed 3/29/04 has been entered. Claims 39 and 46 have been cancelled. New claims 47-52 have been added. Claims 16, 31, 36, and 40-45 and 47-52 are pending in the application.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 16, 31, 36, 40-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al (USPN 5,993,975.) Tanaka et al teach a coating composition which is capable of forming a coating on various substrates, such as a steel plate which is desirably zinc or zinc alloy-plated steel plate such as galvanized steel, wherein the coating film is superior in processability, corrosion resistance, adhesive property, impact resistance, and scratch resistance (Abstract; Col. 6, lines 66-10.) The coating composition comprises a polyester resin and a melamine resin curing agent which together constitute a curable adhesive material, a rust preventive pigment, and organic polymer fine particles which do not melt and flow out during the curing of the composition applied and, even after the curing, remain as particles, particularly preferable is polyamide resin like nylon 11 or nylon 12 (Abstract; Col. 5, lines 31-47.) The particles have an average particle diameter of 0.2-80 microns and can impart rough texture on the coating film surface (Col. 5, lines 31-37.) The coating composition may be applied to the substrate utilizing various coating methods and after application is preferably cured at 160-260°C to provide on the metal surface a cured coating layer comprising polyamide fine particles (Col. 7, lines 51-9.) Tanaka et al specifically teach an example utilizing a coating composition

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comprising an 80/20/10 weight ratio of polyester resin to melamine resin to nylon fine particles, respectively, coated on a hot-dip-galvanized steel surface and baked for 60 seconds at such temperature that the maximum temperature of the based material, the steel plate, became 220°C (Example 1) wherein the Examiner takes the position that the galvanized steel surface taught by Tanaka et al reads upon the broadly claimed genus “steel” and wherein the cured, crosslinked coating taught by Tanaka et al would meet the instantly claimed limitations with respect to forming temperature and leaching temperature given that the materials are the same as instantly claimed.

4. Though Tanaka et al teach that the particles are fine particles, preferably have an average particle diameter of 0.2-80 microns and may impart a rough texture on the coating film surface, Tanaka et al but do not teach that the particulate has a total surface area of about 0.008 square inches as instantly claimed or that the particles are in a chopped film shape. However, it is well known in the art that particle size, particle shape and surface area of particles dispersed in a coating are result-effective variables affecting the roughness or smoothness of the coating surface and hence one having ordinary skill in the art at the time of the invention would have been motivated to determine the optimum particle size, shape and surface area to provide the desired coating surface properties for a particular end use. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to select any particle shape conventionally utilized in the art wherein it is well-established in the art that fine particles can be produced by cutting, chopping or grinding down film or sheet-like materials to produce the desired particle size for a particular end use.

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5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vassiliou (USPN 4,183,998.) Vassiliou teaches a resin coating and substrates, such as metal substrates, coated with the resin coating wherein the cured coating is a crosslinked polysiloxane resin layer comprising a uniformly dispersed phase of particulate organic modifier that is tougher than the polysiloxane, such as polyamide-imide resin, having an average particle size of 0.1-15 microns, preferably 0.5-5 microns (Abstract; Col. 2; Col. 3, lines 22-51; Col. 6, lines 50-55.) Vassiliou teach that the coatings are preferably applied directly to the metal surface and are baked at temperatures and times suitable for curing the polysiloxane resins, normally in the range of 400-900°F, and that the coated substrates are suitable for stove-top or oven baking cookware, and hence the Examiner takes the position that the cured coatings meet the limitation “being able to produce a formed composite part at temperature levels between 500°F and 700°F as instantly claimed (Col. 1; Col. 4, lines 57-62; Col. 7, lines 5-60.) Though Vassiliou does not specifically teach that the metal substrate is a steel substrate, steel is an obvious species of metal utilized in the art and would have been obvious to one having ordinary skill in the art at the time of the invention. Further, though Vassiliou does not teach that the particles have a chopped film shape, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize any conventional particle shape wherein it is known in the art that particle shape is a result-effective variable affecting the coating surface properties.

Response to Arguments

6. Applicant's arguments filed 3/29/04 have been considered but are not persuasive in terms of the shape of the particulate material given the remarks above. However, the Examiner may

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reconsider her position upon a showing of unexpected results with regards to the chopped film particulate shape.

Allowable Subject Matter

7. Claims 47-52 are allowed. The prior art references do not teach a fiber-reinforced resin composite part comprising a steel substrate and a cured resin layer in between the steel substrate and the fiber-reinforced resin material wherein the cured resin layer comprises dispersed polyamide particles, is resistant to temperatures up to 700°F, and prevents acid in the composite from leaching iron from the steel substrate.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 571-272-1516. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Monique R. Jackson
Primary Examiner
Technology Center 1700
June 24, 2004